

Abstract

The invention relates to the field of chemistry and relates to radically coupled PTFE polymer compounds that can be used, for example, as tribo materials, and a method for the production thereof. The object of the invention is to disclose radically coupled PTFE polymer compounds which exhibit improved wear resistances with comparable gliding properties, and furthermore a simple and efficient method for the production of such compounds. The object is attained through radically coupled PTFE polymer compounds comprising radiation-chemically and/or plasma-chemically modified PTFE powders, on the particle surface of which olefinically unsaturated polymers are chemically radically coupled by a reactive conversion into a melt. The object is further attained through a method for producing radically coupled PTFE polymer compounds, in which PTFE powders are reactively converted with reactive perfluoroalkyl-(peroxy) radical centers after a radiation-chemical and/or plasma-chemical modification into a melt with the addition of olefinically unsaturated polymers.